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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,395	04/03/2002	Hideki Hisada	112061	3631

7590

02/23/2004

Oliff & Berridge
PO Box 19928
Alexandria, VA 22320

EXAMINER

SMITH, TYRONE W

ART UNIT	PAPER NUMBER
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2837

DATE MAILED: 02/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/069,395

Applicant(s)

HISADA ET AL.

Examiner

Tyrone W Smith

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4 and 11-29 is/are rejected.
- 7) ☒ Claim(s) 5-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed May 20, 2002 fails to comply with 37 CFR 1.97(d) because it lacks a statement as specified in 37 CFR 1.97(e). It has been placed in the application file, but the information referred to therein has not been considered. Applicant must submit a 1449.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 4 and 11-29 rejected under 35 U.S.C. 103(a) as being unpatentable over Koide et al (5934395) in view of Tsuzuki et al (6018198) and Yamaguchi et al (6546319).

Regarding Claims 1, 3, 4, 11, 16-21, 25-27, 28 and 29. Koide discloses a hybrid vehicle drive system, which includes a first electric motor (Figure 2 item 16) that raise an engine to a speed for an ignition (abstract; column 8 lines 14-67 and column 8 lines 1-8). However, Koide does not disclose the control unit performing prepositioning control for controlling the electric motor so that the engine is positioned at a predetermined crankshaft position when stopped.

Tsuzuki discloses a hybrid drive apparatus for a vehicle which includes an electric control unit (Figure 1 item 5) for controlling the engine (Figure 1 item 1) and the electric motor (Figure 1 item 40), where the control unit perform preposition control for controlling the first

electric motor with a torque output so that the engine is positioned at a predetermined crank-shaft position when stopped (abstract; column 2 lines 33-67, column 3 lines 1-61, column 10 lines 9-67). However, neither Koide nor Tsuzuki disclose causing an electric motor to output a torque short of a torque necessary for running the engine continuously.

Yamaguchi discloses a control apparatus and control method for hybrid vehicle that includes an engine (Figure 1 item 11), first and second motor (Figure 1 item 16 and 25) and torque control means (Figure 1 item 93). Yamaguchi's invention causes the electric motor(s) to output a torque short of a torque necessary for running the engine continuously. Refer to the abstract, column 1 lines 53-60, column 2 lines 6-25, column 5 lines 55-67, column 6 lines 1-10, and column 20 lines 39-53.

It would have been obvious to one of ordinary skill in the art at the time of invention to use Koide's hybrid vehicle drive system with Tsuzuki's a hybrid drive apparatus for a vehicle and Yamaguchi discloses a control apparatus and control method for hybrid vehicle. The advantage of combining the inventions would provide a system capable of making a cranking characteristic at the restart of the engine constant so that the engine is restarted with a good response under a simple control in a state where the vehicle is driven by the motor generator.

Regarding Claim 12-15 and 22-24. Koide discloses a first and second electric motor (Figure 2 items 16 and 22) mechanically connected to the wheel and the control unit controls the second electric motor to absorb a fluctuation in the torque to be outputted to the wheel (column 8 lines 14-67 and column 9 lines 1-65). Tsuzuki discloses a hybrid drive apparatus for a vehicle which includes an electric control unit (Figure 1 item 5) for controlling the engine (Figure 1 item 1) and the electric motor (Figure 1 item 40), where the control unit perform preposition control for controlling the first electric motor with a torque output so that the engine

is positioned at a predetermined crank-shaft position when stopped (abstract; column 2 lines 33-67, column 3 lines 1-61, column 10 lines 9-67).

It would have been obvious to one of ordinary skill in the art at the time of invention to use Koide's hybrid vehicle drive system with Tsuzuki's a hybrid drive apparatus for a vehicle and Yamaguchi discloses a control apparatus and control method for hybrid vehicle. The advantage of combining the inventions would provide a system capable of making a cranking characteristic at the restart of the engine constant so that the engine is restarted with a good response under a simple control in a state where the vehicle is driven by the motor generator.

4. Claims 5-10 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Amendment-Arguments

5. Applicant's arguments and amendments with respect to claims 1, 3, 4 and 11-29 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pertinent art used in the rejection of claims is disclosed in the PTO-892.

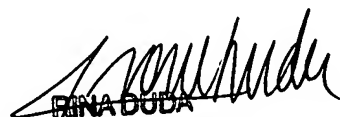
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tyrone W Smith whose telephone number is 571-272-2075. The examiner can normally be reached on weekdays from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi, can be reached on 571-272-2071. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tyrone Smith
Patent Examiner

Art Unit 2837


TINA DUDA
PRIMARY EXAMINER